



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,374	11/19/2001	Yuuzou Kurokami	Q67336	8361
7590 08/18/2005			EXAMINER	
SUGHRUE, MION, ZINN, MACPEAK & SEAS 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			TORRES, JUAN A	
			ART UNIT	PAPER NUMBER
			2631	
DATE MAILED: 08/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

Advisory Action Before the Filing of an Appeal Brief	Application No. 09/988,374	Applicant(s) KUROKAMI, YUUZOU	
	Examiner Juan A. Torres	Art Unit 2631	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 04 August 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: _____.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.
 12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). 04-07-2005
 13. ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 08/04/2005 have been fully considered but they are not persuasive.

Regarding claim 1:

The Applicant contends, "Regarding the Examiner's rejection of claim 1 based on Figure 8, the Examiner asserts that first and second phase controllers limitation (claim element (e)) is met by "figure 8 blocks 65-72, 70 is the control unit." Applicant respectfully disagrees. First, blocks 65-72 do not perform the claimed limitation of "equalizing phases of said base-band signal and said cross polarization interference cancel reference signal to each other in accordance with said phase-difference signal." In addition, element e requires two phase controllers. Even assuming blocks 65-72 correspond to a phase controller, the Examiner has not identified a second phase controller. "

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Aono discloses (e) first and second phase controllers associated with said first and second demodulators, respectively, and each equalizing phases of said base-band signal and said cross polarization interference cancel reference signal to each other in accordance with said phase-difference signal (figure 3 is an embodiment; figure 4 is a detail of element 31 of figure 3; figure 8 is another option for element 31 of figure 3 called now 81 that is more complex and take into account the frequency variation of the carriers f_{R1} and f_{R2} , and the local oscillators f_{C1} and f_{C2} . figure 8 blocks 65-72, and the

Art Unit: 2631

rotator block 44 is one phase controller, and blocks 65-72, and the rotator block 54 is the other phase controller). To see the detail of the first and second phase controller and the equalization phase it is shown in figure 3 ("Detailed Example of the Demodulation Circuit Relating to This Invention") that block 31 "(31) that detects the variance in frequency (Δf) between the primary and secondary playback carrier frequencies (f_{c1} , f_{c2})" and also shows in more detail the 2 equalizations and rotation units (43-44 and 53-54). "Figure 5 shows a specific example of the coordinate rotator. The coordinate rotator (ROT) 44 (54) has the same structure for the V polarized wave unit (44) and the H polarized wave unit (54)". The equalization in phase is disclosed from the variance in frequency (Δf) "The amount of rotation in the coordinate system that corresponds to the changes in frequency variance Δf is output as $\sin\theta$ signals and $\cos\theta$ signals" these signals are input to the two rotators 44 and 54. As stated before these blocks form the first and second phase controllers.

Regarding claim 7:

The Applicant contends, "As mentioned above, the figure 3/4 embodiment does not have first and second local oscillators; rather it has one oscillator f_R . On the other hand the figure 8 embodiment has two oscillators, but does not have two phase controllers."

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Aono discloses a cross polarization interference canceller comprising: (a) first and second signal receivers which receive signals having been transmitted through first and second polarizations vertical with each other (figure 3 blocks 41 and 51); (b) first

and second local oscillators each of which converts one of said signals into an IF signal (figure 8 f_{R1} and f_{R2}); (c) first and second demodulators each of which demodulates said IF signal for producing a base-band signal and a cross polarization interference cancel reference signal (figure 3 DT1 and S13); (d) a phase-difference detector which detects a phase-difference between local signals transmitted from said first and second local oscillators, and transmits a phase-difference signal indicative of the thus detected phase-difference (figure 8 blocks 63' and 64'); first and second phase controllers associated with said first and second demodulators, respectively, and each equalizing phases of said base-band signal and said cross polarization interference cancel reference signal to each other in accordance with said phase-difference signal (figure 3 is an embodiment; figure 4 is a detail of element 31 of figure 3; figure 8 is another option for element 31 of figure 3 called now 81 that is more complex and take into account the frequency variation of the carriers f_{R1} and f_{R2} , and the local oscillators f_{C1} and f_{C2} . figure 8 blocks 65-72, and the rotator block 44 is one phase controller, and blocks 65-72, and the rotator block 54 is the other phase controller); and ; and a reference oscillator electrically connected to both said first and second local oscillators for synchronizing said first and second local oscillators with each other (figure 3 f_R).

Aono discloses clearly all the limitations. Aono uses different figures with different degrees of detail to support his disclosure that have to be taken into account as a whole, no as independent sentences. In "[Figure 7] When the Input Steps for the Circuit in Figure 3 are Different" that is the case of he present application with more detail on Figure 8. Figure 3 is an embodiment; figure 4 is a detail of element 31 of figure 3; figure

8 is another option for element 31 of figure 3 called now 81 that is more complex and take into account the frequency variation of the carriers f_{R1} and f_{R2} , and the local oscillators f_{C1} and f_{C2} . figure 8 blocks 65-72, and the rotator block 44 is one phase controller, and blocks 65-72, and the rotator block 54 is the other phase controller.

Regarding claims 2-5 and 8-11

The Applicant contends, "Regarding claims 2-5 and 8-11, they should be allowable at least based on their dependence from claims 1 or 7 for the same reasons described above."

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, because the rejections of claims 1 and 7 are maintained, the rejection of claims 2-5 and 8-11 are also maintained.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres, Ph. D.
08-09-2005


KEVIN BURD
PRIMARY EXAMINER